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EDITORIAL

LYMPH NODE INVOLVEMENT, RECURRENCE, AND PROGNOSIS IN RESECTED SMALL, PERIPHERAL, NON-SMALL-CELL LUNG CARCINOMAS

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The thoracic surgical group at the National Cancer Center Hospital in Tokyo has had a long history of reporting results of superbly staged resected lung cancers. Their previous detailed analyses have helped to define subset survival after complete resection in the management of non-small-cell lung cancer.

This current analysis focuses on the small peripheral lesion less than 3 cm in diameter and identifies the fact that almost one quarter of the patients had lymph node involvement either within the lung or within the mediastinal lymph nodes. An interesting feature is that in those patients with T1 N0 disease clinically staged by chest roentgenography and computed tomography, almost 10% (27/305) were found to have intrapulmonary spread by virtue of lymphatic dissemination or satellite lesions and almost 15% (44/305) had metastatic mediastinal lymph node involvement. Even in cases of tumors that measured less than 2 cm in diameter, a full 20% of patients had unsuspected lymph node disease. Another interesting feature of this analysis is that of all patients with N2 disease, 25% had no lymphatic involvement within the pulmonary tissue removed but did have "skipping" metastases in the mediastinum. This has been identified previously in reports both from North America and Japan.

As has been the practice at Memorial Sloan Kettering Cancer Center, the National Cancer Center group of surgeons has always advocated complete ipsilateral mediastinal lymphadenectomy in association with pulmonary resection for lung cancer. The astounding 92% 5-year survival in patients with T1 N0 disease probably reflects the results in a very pure group of patients, with T1 N0 fastidiously staged. In a similar group of patients treated by lobectomy by the Lung Cancer Study Group but staged only by lymph node sampling, the 5-year survival approached 70%, but both reports had a similar cancer recurrence rate of approximately 20%.[1]

This report's recommendation that mediastinal lymphadenectomy be considered part of the appropriate surgical resection for lung cancer is tantalizing. Mediastinal lymphadenectomy has never been demonstrated to improve survival, but it has been shown that, although it increases operating time by

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20 to 30 minutes, it does provide for the best possible surgical staging and allows for a complete surgical resection in patients with unsuspected mediastinal disease without added morbidity. The 44.5% 5-year survival for this select group of patients with T1 N2 disease matches the survival seen in other reports of single station N2 disease that is completely resected. Every patient undergoing resection in the treatment of lung cancer deserves complete intraoperative staging: mediastinal lymph node dissection accomplishes that goal.

On the basis of this detailed retrospective analysis, the authors of this paper also infer that resections less than lobectomy might not be adequate even in patients with clinically staged T1 N0 disease and even in those patients with peripheral lesions less than 2 cm in diameter because of the significant prevalence of intrapulmonary and mediastinal metastatic disease. The only exception to the rule might be very small peripheral squamous cell tumors. A similar conclusion has been reached by the Lung Cancer Study Group on the basis of an almost threefold prevalence of locoregional recurrence in a group of patients with T1 N0 tumors treated by limited resection when compared with results in a similar group randomized to lobectomy.[1]

Whether surgical resection is done by a large posterolateral thoracotomy, a video-assisted approach, or something in between, the basic principles of cancer surgery must always be adhered to; that is, complete resection and adequate surgical staging.

REFERENCE

1. Ginsberg RJ, Rubinstein LV, for the Lung Cancer Study Group. Randomized trial of lobectomy versus limited resection for T1 N0 non-small cell lung cancer. Ann Thorac Surg 1995;60:615-23.